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7400
F 8

On preventing Juvenile
from exhalation.

446 57
~~15~~ 210 15
236 36

15
154.68

4



"Odia in longum facere, quae recorderet, aucta
quae promeret."

Lectures on the means of
preventing Summer & Autumnal
Fisces. Del Jan^y 17. 1804. begin p. 19

Origin of Epidemics from bad food,
water, & earthquakes - how prevented?

4/306/75
28.
20.
26

251
28
75

in the present instance
✓ By this disease I mean morbid excitement
on ^{irregular} ~~partial~~ action, ^{of a partial nature} ~~partial~~ in muscular
fibres, seated in different parts of the body.

Gentlemen /

I rise in compliance with your
appointment to deliver as the subject of my
oration, the result of the observations of four
and forty years upon the Summer & Autumnal
Disease of the United States. V

In considering this disease, I shall
I enumerate its different forms, & afterwards
make a few remarks upon them.
II I shall mention its causes, & I shall
III I shall point out the means ^{of preserving the system} ~~which have been used~~
~~of from them, & I mention the methods of~~
~~with success to prevent it.~~
preventing them, by exterminating this cause.
~~I~~ ~~you~~ will perceive at once that I have adop-
-ted the idea I have taught for many years in
the University of Pennsylvania by calling the
the different forms of our Summer &
Autumnal disease may be included under
the following heads

- 1 Diarrhoea.
- 2 Colera morbus.

+ I pass over here the forms of ^{indisposition} ~~disease~~ in which this

v That all the ^{above} forms of disease ^{differs} ~~are~~
~~the same in the~~ only in their seat, and
degrees of ~~the~~ dyscrasias, but are the same
in their nature, I infer from their appea-
ring at the same seasons, from their
from their changing into each other,
depending upon the same cause, & disap-
pearing ^{at} ~~from~~ the same time.

+ I pass over all those forms of indisposition
under which the Summer & Autumnal
Disease sometimes disguise themselves, such as
head ach - tooth ach - ophthalmia - lumbago &c &c
like ^{all the} ~~to some~~ other local affections as mentioned
by Dr. Sydenham.

Also sporadic cases of all 10 from other
causes -

3 bilious Colic. 4 Dysentery - 5 Febricular or
what is called in the Southern States inward fever.
6 Mild Intermittent & Mild Remittent. 8 Cholera
- mic ~~for~~ or typhus fever. 9 Inflammatory bilious
fever, and 10 malignant, bilious, or what is
commonly called yellow fever. +

It may appear ~~strange to some~~ ^{strange to some} to such of
the members of this Society as have not been
my pupils, to ~~consider~~ ^{include} all the forms of disease
which have been mentioned under one
name - But ~~I have~~ ^{there are many} precedents for doing so
in the ~~writers upon~~ ^{in our} ~~many of the~~ ^{practical} books of medicine. ~~but I shall mention but one of them.~~
I shall mention ~~but one of them.~~ ^{but one of them.} The Gout ven-
-ries not only the limbs, but ~~the head~~ ^{and every} ~~and every~~ ^{are written} ~~other part of the body,~~ ^{has}
upon that account distinguished by a plu-
-ral epithet. ~~The~~ ^{the} small pox affects with disease
& pain, not only the skin, but the head, the
throat, the lungs, the ~~the~~ bowels & the kidneys,

~~of the United States~~

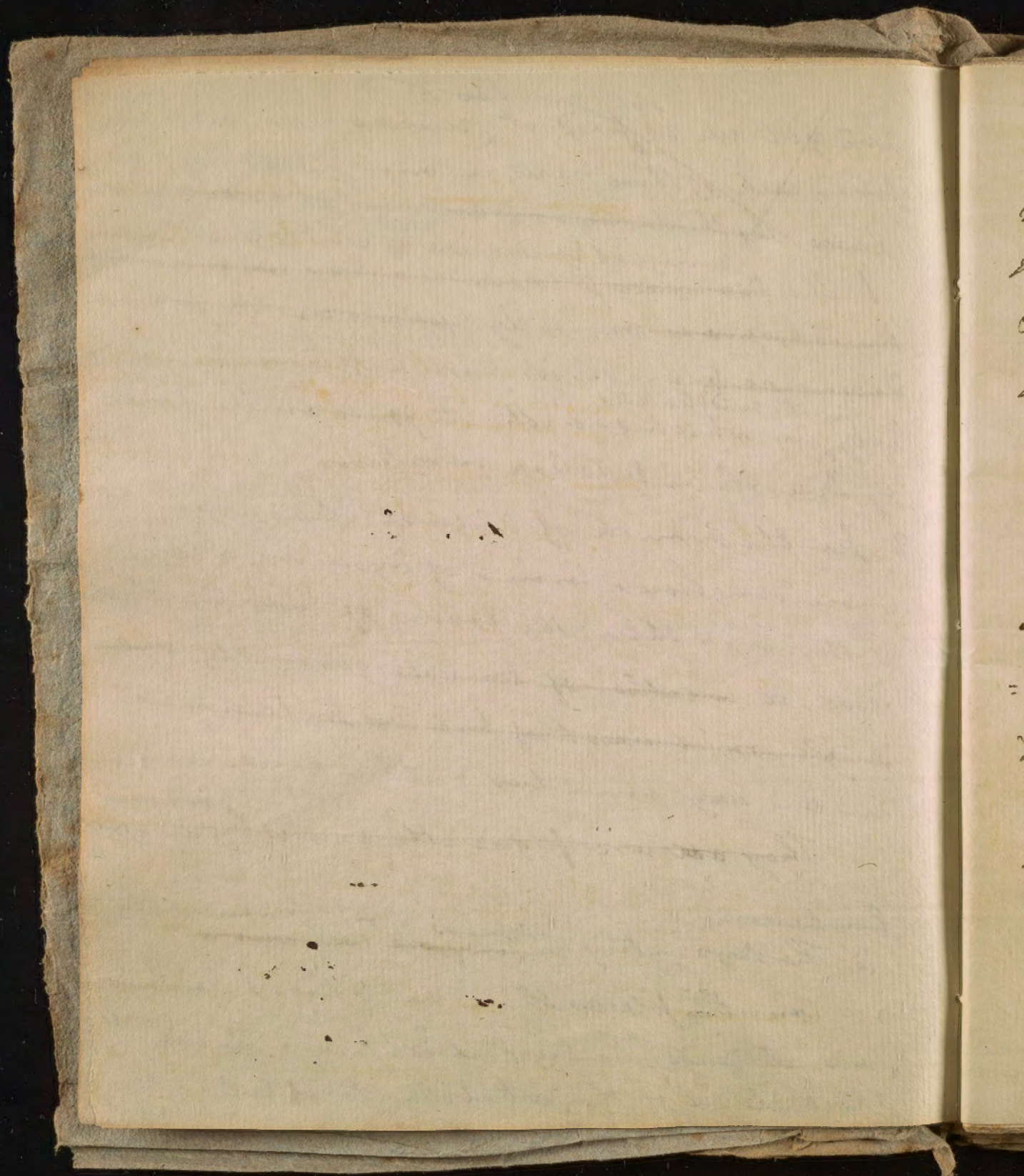
And yet we do ^{not} find it, ^{has 3} revised now named
from each of those parts in our histories of disea-
-eases. ~~By the summer & autumnal diseases of~~

1 The ~~Diarrhoea & Colera~~ ^{Annual Epidemic of our Country} ~~has~~ ^{generally}
~~times appears~~ generally appears in the form of
~~Diarrhoea~~ makes its first appearance in
^{in the middle states} July, in which month it puts on the form
of Diarrhoea & Colera morbus.

2 In the month of August it assumes the
more dangerous forms of Dysentery & Colic,
with now & then the forms of fever in which
case, it ~~is either of~~ ^{consists} generally of a
~~single or at most of but two or three~~ ^{transients}
in one day, or in two or three days.

~~They also are frequently excited by unripe~~ ^{or decayed}

~~fruit~~
3 The Dysentery ^{appears more frequently} ~~is more common~~
in country places than in cities. I have never
seen it epidemic in Philadelphia. The ^{more} ~~det~~
cordial diet of the inhabitants of cities pro-
-bably

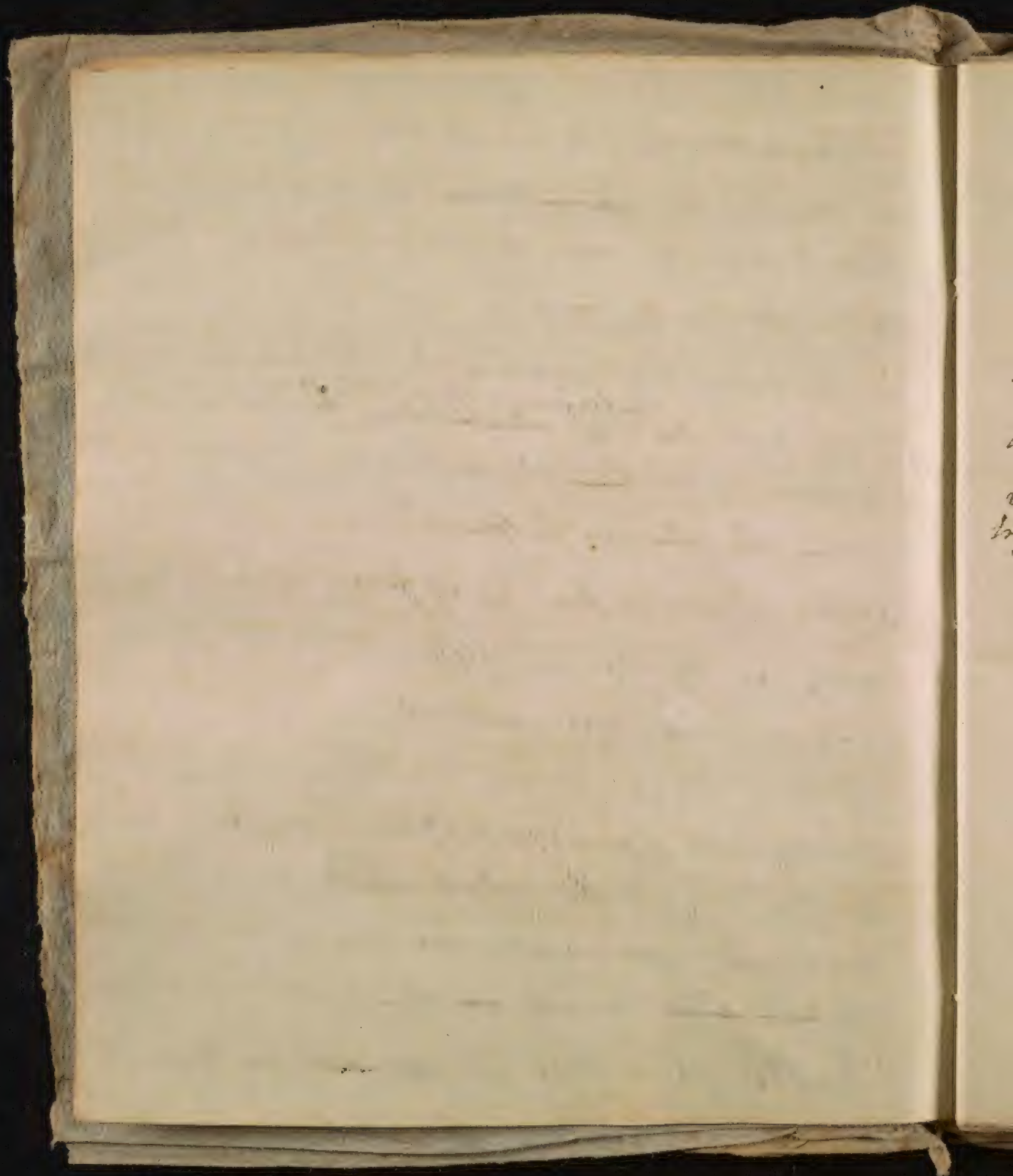


defends the bowels from the influence of miasmata ~~upon them~~, and determines their action to ~~the~~ the blood vessels in one of the forms of fever.

4 The Dysentery appears chiefly ~~in~~ ^{is} upon high grounds - ~~or~~ ^{& frequently at the same time that} while other forms appear upon ~~the~~ the declivities of those grounds, or in the plains below them.

5 The different forms of fever appear separately, or together in different years. In the year a mild intermittent

Between the years 1760 & 1766 it appeared ^{chiefly} ~~chiefly~~ in the form of the what ^{was} ~~what~~ formerly called nervous fever, and ~~who~~ was often protracted to ~~one and~~ twenty or thirty & forty days. In the year 1780 it appeared in Philad^a.



5
in the form of mild Remittent at which
time it was known by the name of
the break bone fever. The febricula appears
frequently ~~is~~ in Maryland, unaccom-
panied with any other form of fever.
At this time it is said ^{"though} no body is sick, yet
no one is perfectly well". Mr Colney ^{in his} ~~was~~
~~travels thro' this country~~ ~~much~~ ~~thinks with this~~ general feverishness
of the inhabitants of the Southern States, &
informed me that he ^{discovered} ~~found~~ ^{general} ~~in his~~ ^{among the inhabitants of} this
feverishness ~~to~~ ^{other} ~~spread~~ several of the Southern
States in the fall of the year. The inflam-
matory fever prevailed alone in the city of
Philad^a in the years 1791 & 1792. It was
the forerunner of the malignant, or
yellow fever which prevailed in the
year 1793, & which has for several



years since has been the solitary Epide-
-mic of our city. But again - ^{some & sometimes} all those
forms of fever appear together in the same
~~but apparently independently of each other~~
season. ~~This was the case in Philadelphia in~~

~~the year 1802.~~ [&] Sometimes they ~~appear~~ ^{I have said} into
each other. This was the case in the
year ^{1802 &} 1803. The mild Intermittent changed

into a malignant yellow fever & the malignant
yellow fever after the 3rd day put on the form of
a mild Intermittent. ~~The same malignant~~
fever and sometimes of a nervous fever.

The same forms of
the Summer & Autumnal Disease differ
in different years in ^{this} its symptoms - in ^{this} its
signs of life and death. ^{& in its modes of cure.}
The obstinate loathsomeness attended the malignant

fever of 1793 a Diarrhea attended the same
form of fever in 1802, and a moist skin was
a general symptom of ~~the~~ it in 1803. A

V Diff^r Coastⁿ afford diff^r grades of disease - also residence
as new comers in West Indies.

Different grades of activity in Miasmata - as from
water to 9th Street.

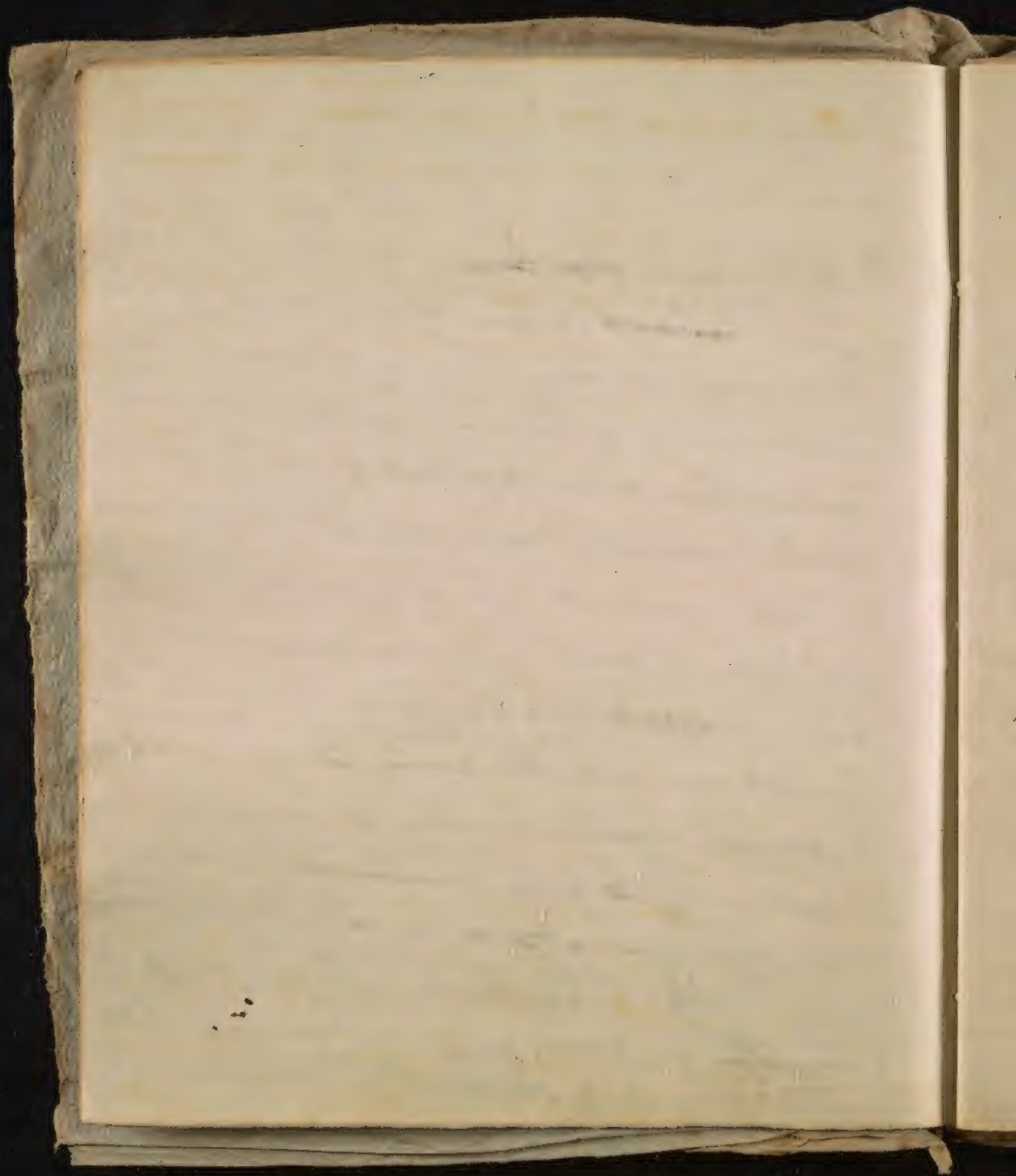
- 1 V¹⁸⁵ affects Lips Colors &c - ages &c nations -
~~Why~~ why fresh West Indies escape it & we not.
- 2 also differs in acquiring more or less it:
- citing cause D^r Manganis: Story.
- 3 It appears earlier, or is more protracted - on
west near confluent of fresh & salt water. Ulterior.
its predispoⁿ: as in Sicily: from & opposite?
- 4 yield to frost &c - heavy rains -
It will be expected I add Confagⁿ: - in what
instances - never Epidemic from it. ^{high consumption}
- 5 They are most apt to affect Strangers. ^{more} obvious
in Carolⁿ than in middle States, where the coldness
of winter &c
follows clearing Country.
- 6 Old people kept alive by them.
- 7 Different Determinⁿ: as head - Stomach - limbs
& above all Liver. In 1791 & 1792 I depatⁿ very common.
& follow course of winds. Smithhill.

4
7
Sore throat was a favourable symptom in
malignant
the fever of 1793 - but a fatal one in the ^{same} fever
in 1798. An hæmorrhage from the gums preceded
which &
Death in 1793, but was followed by a recovery
in nearly all the cases in which it occurred
on the 5th day in 1798. Copious bleeding, & strong
mercurial issues were the most most effectual
remedies in the ^{malignant fever of} year 1793. The same ^{fever} ~~year~~
1793 yielded to moderate bleeding, gentle purges
early blisters
& copious sweats in the year 1803. V

7 The Disease under consideration differs in
its symptoms, ~~being its nature~~ ^{its nature} indifferent
parts of the same ~~same~~ season. It sometimes
comes on like a heat of pyrexia, and goes off w.
the gentleness of a domestic animal. Again
its puts on an opposite character. Sometimes
it makes its first appearance in the form
of a Dysentery, & changes in its course
into malignant fever. In Dural

visit -
sometimes known on the first, again not so -
V. ~~by~~ yellow pines known first visit - in 1793
not so in 1802 & 1803.

8 ~~Whence~~ ~~the~~ ~~has~~ All the forms
 of fever ~~infects~~ ^{that have been mentioned} when they become Epidemic
 chase away all other forms of disease, or
 impart some of their symptoms to them.
~~The one that in 1780 put on the symptoms~~
 of a Remittent. The purpurile fever becomes
 an Intermittent during the prevalence of
 that form of fever. The ~~rose ligament~~ yellow
 fever of ~~1793~~ 1793 blended its malignant
 symptoms with the Gout, ^{every other form of disease.} in the year 1798
 it ~~predominated over the fever excited by~~
 a ~~broken leg~~ ^{it discovered} and ~~demonstrated~~ its universal
 Dominion ~~over~~ ^{mixing with} by ~~an~~ ^{predominating}
~~over the fever~~ ^{which were} excited by a ~~broken leg~~ ^{accidents} &
^{in one instance} finally sealed its presence by an unexpected
 black vomiting on the 5th day after a broken leg.



Summer & autumnal ^{yields}
of ~~the~~ ~~same~~ Disease differ in different
years, and in different ^{months} of the ~~season~~
same year to a different modes of cure.
In the year 1793 the malignant fever
of the year 1793 ^{required} ~~yielded~~ only to copious bleeding,
strong purges & a salivation. The same
fever in 1803 was cured by ~~a~~ moderate
bleeding, ^{active} gentle purges, early blisters, and
copious sweats. The purvian Bark was
exhibited with universal success in the inter-
mittents of 1781, the same medicine did
harm in the intermittents of
1794. ^{Bleeding proved fatal} in the malignant fever of 1793 in
the ~~on~~ ^{beginning} of ~~an~~ month of August.
After the ~~destruction~~ of the stimulus of
heat was abstracted from that of Mias-
matic ~~in~~ ⁱⁿ the middle of Septem-
ber the ~~same~~ ^{after} ~~remedy~~ blood to vessels rose under

v Dr Blane is yellow skin only as

10

the use of the ~~same~~ ^{and of} ~~same~~ ^{same} lancet, & it finally
became its ~~general~~ ^{principal} and
most successful remedy.

10 The Summer & Autumnal Differ in its
degrees of mortality in different years, &
sometimes in different parts of the same
Season. — The Remitting for the ~~the~~
few recovered from the malignant fever of
1802 — a few died of the same fever in the
year 1803. The malignant fever of 1793 was
rarely fatal when treated with ~~the~~ ^{depleting} ~~remedy~~
— dies in system, but it resisted ^{their whole} ~~the whole~~
force of ~~the~~ ^{of medicine} ~~remedies~~ in the succeeding month.
This difference in the mortality of the yellow
fever is not confined to the United States.
Dr Halliday lost but

while Dr Horne acknowledges that ~~the~~ ^{scarcely}
more than 2 to 3 in 4 recover

1 I shall only add two remarks. 1 Study
Study diseases in their connections with each
other & muscular motion & ^{ch} we see in Vol. II
on epidemics
2 Study every Epidemic every year.

* How do they act? Stomach - lungs - vessels.

in the most successful practice on the Island
of Jamaica. — It would ~~seem as if dis-~~
~~ease~~ be foreign to the ~~dis~~ design of this
discom to inquire into the Causes which
produce the variety in the forms, grades, &c.
of our Summer & Autumnal disease.
I shall only observe that ~~most of them may~~ ^{they are chiefly}
~~be discovered~~ to be sought for in the sensible
& insensible qualities of the Atmosphere &
in the course of winds, and in the qualities
of the ~~Aliments~~ Aliments of different years.

We come next to mention the Causes of
the disease which is the subject of our
oration^x. These are chiefly

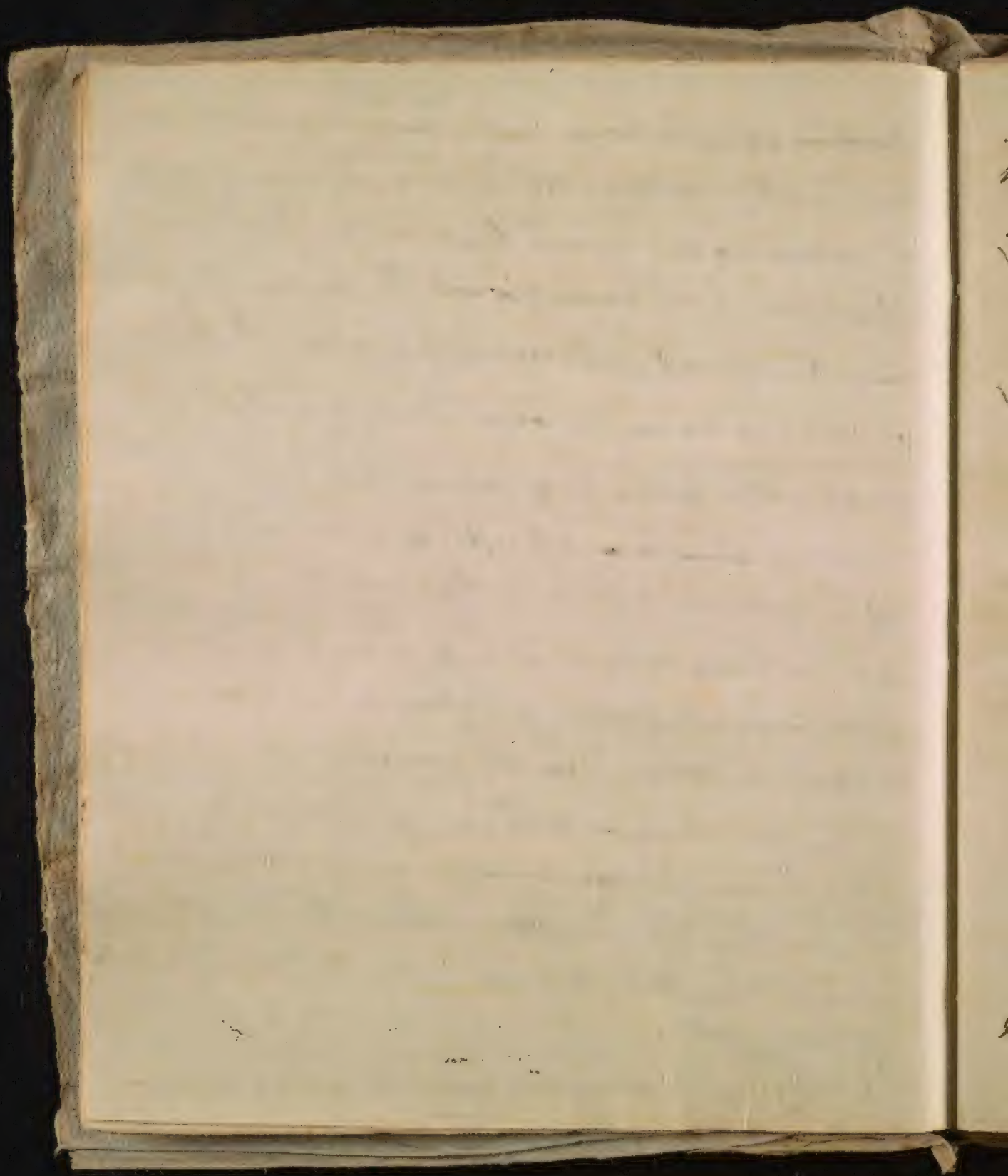
~~the~~ ~~those~~ while foreign countries
are obliged to look for their Epidemics in
exhalations from Volcanos & Wells, or
springs of water, ~~which are~~ in addition to

V They are more or less active according to
the sources from whence they are derived. The
exhalations ^{from} filth ^{is} more active, than in
~~those which~~ ~~arise in the~~ from marsh exha-
-lations, & the exhalations ^{in cities} from Dochs & cellars,
& the hold of ships more active than from
Streets & gutters

12

putrid exhalations from ^{putrefied} vegetable & animal matters. ^{had waterase.} We are under no necessity of extending our views beyond the last source that has been mentioned to account for our annual Epidemics. Upon the subject of exhalations in our Country, I shall make the following remarks. —

- They ^{are derived} ~~consist~~ chiefly of from putrid matters of a vegetable nature. These are
- 1 These exhalations are the product of ^{certain degrees of} heat & moisture. Their most productive sources ~~of~~ are inoffensive when dry, or covered with water.
 - 2 They are conveyed to ^a considerable distance by the winds. In some instances to two miles. M^r Lempriere mentions some facts which prove they are carried miles in the islands of Jamaica.
 - 3 They are most active ⁱⁿ after the setting ^{evening, and} of the sun,



in the morning. These are lost in middle of the day, and night.

5 They spread more in ^{& cool} Damps, than in dry weather, & warm weather.

6 They ~~are~~ ^{high situations - see vol 5 p 105} their activity is destroyed by cold when it is ~~is~~ ^{they are} produced ice. It is likewise destroyed by heavy rains, & destroyed by them when they are succeeded by weather so cool, as not to admit of exhalation.

7 They are frequently accompanied by with an offensive ~~smell~~ ^{odor}, but they exist sometimes in a very delicious form, without being perceived by the sense of smelling.

8 They have hitherto eluded the inquiries of the Chemists. Some late physicians have ^{so far} been misled by their ^{inability to discover them in} ~~extraneous~~ ^{subtlety}, as to the ~~aid~~ ^{aid} by means of chemical agents ^{denying the} during their action in producing bilious diseases. As well might they ^{denying the} existence of odors in the air.



become they are alike ~~impenetrable~~ ^{for} they like
 one alike ~~impenetrable~~ ^{resist the} to the test of the Experi-
 mental experiments.

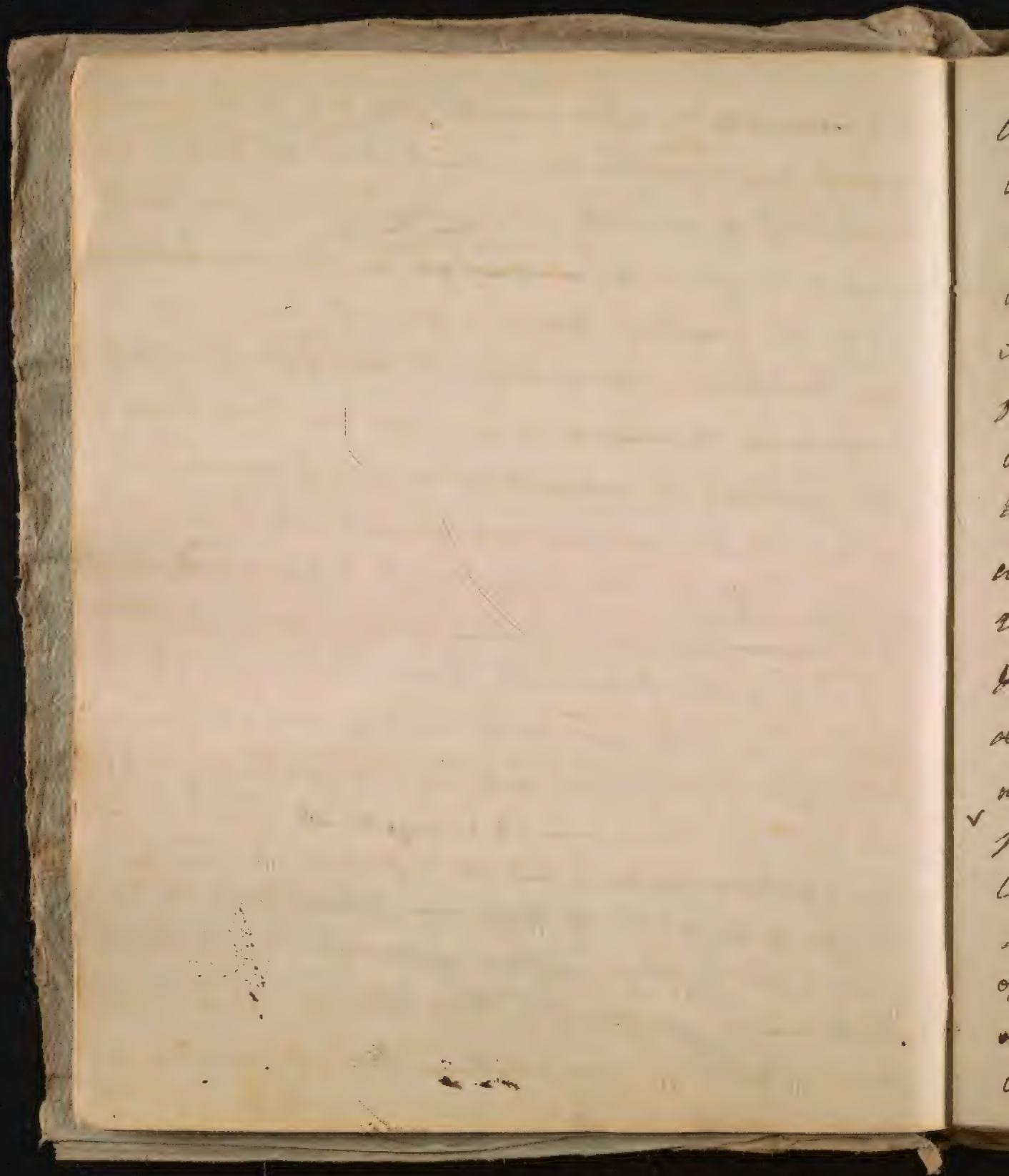
v I ~~suppose~~ ^{think} It has likewise been asserted that
 they do not produce the diseases that have been
 mentioned because, ~~they do not act uniformly,~~
 & because some of the filthiest cities in Europe are
 exempted from them, and because they do not
 act uniformly in our own Country. In an-
 swering the first of these objections, it will be
 proper to remark that filth & dist are two
 distinct things. The Streets of a city may be very
 dirty, and ~~not filthy~~ that is, covered with ~~inoffe-~~
^{and composed of inoffensive}
~~sive~~ clay, or sand, or lime, & the at the same
 time be free from ~~those~~ ^{those} filthy veg: & animal
 matters which by putrefaction contaminate
 them. This I believe is the case with Lisbon, &
~~some~~ some of the cities in Italy. To the

✓ a similar, ~~and~~ want of uniformity
appears in the ~~production~~ of operations of our
climate appears in the like equality of
grain
our fruits & vegetables of all kinds

second Objection I reply that ~~these~~ the exhalations of our Country in producing diseases, depends upon ~~many circumstances~~ this being combined with more or less heat, or moisture, and perhaps upon the disposition of the body from the Aliments of the Season. But ^{different} ~~opposite~~ currents of winds, or the total absence of Wind - ^{upon} the Disproportion of temperature of the Air in the Day & Night - upon the Quantity of dew - upon the early or late appearance of warm or cold weather, all of which vary in different years. The ^{more} frequent prevalence of the malignant bilious fever in our Country, than in former years, may be accounted for upon requires a specific explanation. The fever from the ^{longer} ~~longer~~ more encroachment which the heat of Summer has made upon the ~~cool~~ Autumnal months a longer period is given for ^{the generation of} ~~can greater accumulation~~ - tion of



~~purifying~~ of putrid exhalations, and possibly for their
 greater concentration and activity. But the ^{late} increase ⁱⁿ of
 malignity of our ~~late~~ bilious ~~fever~~ Disease must be
 resolved chiefly into ^{a more active state} ~~a change~~ in the atmosphere
 from causes that they are as yet unknown to
 us. ~~To the existence of this~~ It has ^{was} been observed
 even since the days ^{by} of Hippocrates, and has been
 acknowledged by every physician of ^{all Ages &} ~~every~~ ^{all} ~~ages &~~
 countries. It is sometimes general over a whole
 nation, again it is confined to cities ^{districts} ~~provinces & states~~.
 It is ~~transient~~ sometimes permanent, ~~again~~
 but it is more frequently transient in its effects.
 It discovers itself not only in a greater excitement
 of the system in diseases, but in many changes which
 take place in the animal & vegetable creation. Even
 fishes ~~of fish~~ feel its influence in their watery
 portion of the globe. Of this, many proofs are to be
 met with in the histories of pestilential diseases.
 But ~~seeing all this~~ ~~is~~ this solution of the
 want of uniform connection between the summer



& Autumnal Disease of our country, & of the most
~~appearance of the bilious yellow fever is~~ ^{bad water & dirt - just enough} ~~is~~
~~and the putrid exhalations~~ ^{not} ~~be~~ ^{all} ~~admitted, I will~~
~~add a fact that establish this~~ ^{cannot be denied}
in favor of ~~this~~ its being derived exclusively
from in all its forms from that source only,
and that is - there never was - While I admit
the want of a uniform that putrid exhalations
do not from the causes that have been admitted
uniformly, or in successive years produce ^{as} bilious
& malignant diseases I will add that ~~they do~~ ^{have}
~~do not exist~~ ~~never~~ it never has existed in
any form ^{independently of} ~~without~~ ~~them~~. ~~Lesson~~ ~~the~~ From the
plagues of Athens, and the intermittents of
Campania, down to the malignant fevers of
Philadelphia, and the intermittents of the shores
of Skullkill, every in the year 1803, every form
of Summer & Autumnal disease has existed in
only in the vicinity of ^{noxious} ~~putrid~~ exhalations. It is

✓ of these fevers ~~the~~ nature sympathies in
m p 21. & n p 22 d

✓ all the two states of Summer & Autumnal
Disease originate from putrid exhalations. I
have mentioned all their sources, & the laws
which govern them formerly. we

+ first mention all its sources former
vol. iv also the 11 forms of autumn fevers
external & internal.

true these exhalations have not ~~only~~ always been
 derived from putrid vegetable & animal matters. ~~then~~
~~off~~ Equally baneful or sickly exhalations have
 sprung from the bowels of the earth After an Earth-
 quake, and from ^{figures} ~~columns~~ in mountains, & from
 wells, and pools of water have now often produced
~~Epidemic~~ epidemic fevers. but these may be con-
 sidered as ^{of an accidental or} sporadic nature. They ~~have not~~
 appear but rarely, and seldom return in the
 same country. They are like the cases of malignant
 fever which are produced by a poisonous dose of opium
 or Corrosive Sublimate compared with those which
 arise from the ordinary exhalations of our Docks
 and Cellars. nor shall I here except the occasional
~~fever~~ Epidemics which have ^{arisen} from scarcity, or
 unwholesome diet in ^{distant ages &} ~~foreign~~ foreign countries.
 They occur but rarely, & ~~for~~ should constitute no
 Objections to ~~hygiene~~ ^{the truth of the general re-}
~~mark~~ mark which has been delivered. During the prevalence
^V we proceed in the 3rd place to ~~restate~~ enumerate

V For this purpose it will be necessary to mention
the signs of their presence in this atmosphere when
they are disposed to produce the highest grade of
malignant fever. These signs ~~as~~ I shall mention
such signs as are external, & ^{by} such as
appear in the human body. The signs of a
pestilential ~~atmosphere~~ ^{Epidemic} appear

19, morbid

the means of obviating the effects of these exhalations
upon the human body.

The first step for this
purpose is to ascertain the approach of I shall
begin more especially when they are accompanied
with that state of the atmosphere which disposes
them to produce the malignant ^{or pestilential} form of
bilious fever. ~~first necessary to mention its present~~
~~signs. These are external, & 2 they are in the body.~~

to discover by external signs the approach of the
pestilential diseases, in order to guard the body
against them. Diemerbroeck mentions that ^{and}
frequent sudden disappearance of birds that ^{were}
common at the season of their flight, & the greater
frequency of abortions preceded the great plagues
which he ~~also~~ describes at Minceverem. The approach
of the malignant bilious fever in ^{this city has} ~~our country~~
been indicated in different years by the following
signs. 1. Unusual violence in the diseases of
the previous year or season. The Intermitting



of 1791, & 1792 ²⁰ ~~did not yield as formerly to~~ ^{appeared so inflammatory as}
~~the type~~, as to require bleeding, to prepare them
for the use of the Bark, & the plums of most
of the Springs which preceded our malignant
fevers have called for more depleting remedies
than ~~those same diseases~~ in other years, to cure
them. Nature is uniform in these preliminary
signs of ~~for~~ greater force in the disease which
precede pestilential fevers in other countries.
They occurred according to Sydenham in the
fever which preceded the great plague in
London in 1665. They were observed likewise in
a fever which I of this, as there are many
hundred instances in the records of medicine.
Even Dr Christolm whose ideas of pestilence
exclude ^{its} ~~all~~ connection with ~~scarcely~~ the
state of the atmosphere, has ~~now~~ added his
testimony to the evidence of Ages in favor of
this remark, & thereby refuted his ^{own} ~~late~~ doctrine
of its contagious & importable nature. He

V. total suspension of diseases of all kinds just
before the appearance of a malignant epidemic.
~~The months of~~ in 17: ~~years~~

Unusual healthiness in the months of
preceded the furious fever of

I have ascribed this to the ^{preternatural} stimulus of the
atmosphere ~~impregnated with~~ ~~its~~ overcoming
the action of weak diseases.

It would seem as if ^{see vol. 3. p. 180 facts from Diamant} great & mortal epidemics
had like the planets, ^{that} satellites revolving round
them. for they are not only preceded, but accom-
panied & followed by diseases which appear to
directly reflect back upon them some of their
violence & malignity. But there is sometimes an
exception to this remark, for we ^{now & then} ~~sometimes~~ see a total ~~of~~
in above V

mentions its being preceded by a violent E.
-seclas in M^oring, & accompanied by a
small gale equally malignant with itself
in ^{another} the Island. of It O + ² Sometimes there is a

2 The malignant form of bilious fever has
been preceded by a general yellowness in the com-
-plexions of our citizens. This has been noticed
by strangers. It occurs in other countries subject
to the same fever.

2 They appear in
3 It has been preceded, & accompanied by winds

from unusual quarters, or by unusual calms.
The winds have blown for more constantly from these
during our political year than in former years.

3 Turbidity or mist in the air. Dr Wilson, who says
this generally precedes a sickly season in the Delaware State.
[The same] a sickly calm attended the epidemic
of 1793 in Philadelphia. A similar state of the air
is described by Dr Baynard during the last plague
in London. His words are " ^{there was} a general calm &
serenity of weather, as if wind & rain had been ba-
-nished from the realm. I could not observe the
least breath of air to stir a pane, or weather cock.
Lines with great difficulty were made to cross, &
the very birds would pant for breath more.

v Diemerbroeck's facts - see A. B. Rose Parey's too
p. 3 of fever in 1798.
predict as of comets & eclipses
fever.

22
especially ~~kites & crows~~ who were observed to
fly more heavily than at other times."

They appear in
It has been preceded by uncommon sickness
& mortality among many birds & beasts more
especially wild pigeons & cats.

The common house fly has disappeared from our
city & ~~uncommon insects of home appeared~~ cities,
and mosquitoes have been multiplied, & some
new insects have appeared just before, or during
the prevalence of our late malignant epidemics.

~~The leaves of~~ Certain trees have emitted an
unusual smell, and of others ^{the leaves of others have} fallen prematurely,
and the fruits ~~of some~~ fruits have been left
in fire, or of an inferior quality in the summer
previous to several of our malignant autumnal

fevers. —
Dr Oliver has taken notice of a change from
the ~~white~~ ^{paint} to a dark color upon the boats in the
harbour of Boston being changed to a dark color
during the prevalence of the malignant bilious
fever in Boston in the year
If the

^{Howeats}
V fatigue from light exertions -- hands when rubbed
emitting smell like Hep. Sulph: - some degree of burning
from wine in the mouth -

The signs of the presence of exhalation in the human body ~~human body~~ which produce a yellow fever are as follow.

- 1 A sudden apation of an old, or chronic disease, or a conversion of a periodical into a continual disease. ~~At Philadelphia~~ Of this there were many instances in Philad^a in ^{the} year 1793.
- 2 The breaking out of old sores, ^{of fresh} or eruptions upon different parts of the body. the prickly heat & the little rash are the effects of the ac.

I have observed ^{or even} a head ache, ~~or a decay~~ of appetite, ~~or an~~ costiveness, a diminished, or increased secretion of Urine, constant sweats, ^{as sometimes of a putrid nature} or a dry skin, wakefulness, or a disposition to early ~~or~~ protracted sleep, ^{a preternaturally frequent} the ^{unusual} vivacity, or depression of spirits ^{as in the face - a red, or yellow eye -} ~~have all been observed~~ in persons who were exposed to the exhalation of our annual epidemics, and who ~~did~~ were not confined, & who could not believe they were predisposed by any of those symptoms to the disease.

v The first where flight is practicable it
should be resorted to in every case. The
heights of Germantown & Darby have for many
years afforded a secure retreat to the citizens of
Philadelphia from their late Annual Epidemic.
~~Since the western parts of the city~~ In getting
place are infected by foul air mixed air, cold,
to be taken care to expose the body to great heat,
or fatigue, for ~~the~~ where the system is tainted,
the least exciting cause often renders flight in-
-effectual by inducing the disease, ~~and~~ [&] de-
-stroys health where safety was sought. But when
flight is impracticable, or inconvenient &
safety should be sought for in such means as
reduce the ~~adversity~~ time & strength of the system.
These are I, duplicating Remedies nature. Thus often

The means of preventing the Summer, & autumnal disease of our Country come next under our consideration. I shall ^{first} mention, such as ~~as~~ have been most effectual in ~~def~~ guarding against its most malignant form, and afterward, take notice of such as are proper ^{I shall I speak of the means proper for} ~~the~~ individuals. Then of 2 in its ~~more~~ milder grades. ✓

means to defend whole communities.

~~1. The diet should be consist chiefly~~
~~I of the means proper for individuals.~~ ✓

2. The System when impregnated with mias:

mata is under the influence of a preternatural stimulus, and from the suppression of customary exertions is often in a plethoric state. The prophylactic remedies should therefore be such as are calculated to lessen this stimulus, & to mitigate the preternatural fulness of the bloodvessels.

~~They say the first remedy for this purpose~~
 1. ^{is} a spare diet, ~~unformed~~ accommodated to the greater or less degree exposure of the body to the action of miasmata & to the greater or less degrees of labor, or exercise which are taken. ~~for the~~

who live wholly upon vegetables,
V The Bramins escape the malignant fever
of India, while the Europeans who eat
animal food die in regiments around them.
People in Virginia who live near gardens ~~are~~ ^{are} ~~not~~ ^{not} ~~plagued~~ ^{plagued} by fruit
~~the~~ ^{the} ~~pest~~ ^{pest} ~~engraved~~ ^{engraved} of South Carolina owe their
exemption from the bilious fevers of that state
to the ~~the~~ same cause while their masters often
die, or suffer with it. A low diet acts in two
ways. ~~It~~ ^{not only} ~~opens~~ ^{opens} the quantity of blood, & the force
of stimulus upon the blood vessels, but it ~~impacts~~ ^{induces}
~~a~~ ^a ~~weak~~ ^{debrility} upon the system, as disposes
it to vibrate more readily under the impression of
the miasmata - thus the willow ~~beetle~~ ^{arises, after standing}
~~is~~ ^{is} ~~before a blast of~~ ^{before a blast of}
~~the~~ ^{the} ~~wind~~ ^{wind}, while the unbounding oak is torn up
by the roots. It is from this ~~influence~~ ^{influence} of vibratility
in the systems of women in the West Indies, ~~as~~
~~acquired by their temperance~~ ^{acquired by their temperance} that they escape the
endemic fever of that the Islands. The

In year 1793 I lived for nearly 8 months wholly upon
~~with~~ vegetables & a Coffee with a small quantity of
 with vegetables, but I ~~do~~ for cases of great ex-
 -posure to an ~~injure~~ infected atmosphere ~~the~~
 with but little exercise, the diet should be
 simple in its Quality, & small in its Quantity.
 A little salted ^{also a little Cayenne pepper} meat ^{when taken with} ~~with~~
~~vegetables, prevents the stomach~~ & also a small
~~quantity of the Cayenne pepper prevents an~~
 undue languor of the stomach from ^a want
 of its customary aliments. Where the body
 is ~~but~~ but little exposed to foul air, ~~and~~ and
 much exercise taken, Broths, & a little
 wine, or small liquors may be used with
 the fruits & garden vegetables of the season with
 Advantage. ~~The diet~~ The Change from a full
 to a low diet should be made gradually. ^{when} ~~when~~
 made suddenly it ^{increases the predisposition} ~~increases the predisposition~~
 to disease by accumulating the excitability of

more than protestants from it in plague. Howard. also in
1793.

v also by fires. ~~to~~

have de

the system. ~~Long fasting to be avoided. Cathartic suffi-~~
^{to keep the system open}
 a 2. ~~depleting remedy is quickly laxative medicines.~~
 2. ~~gently laxative medicines have been found~~

effectual in many instances in preserving the
 body from ~~the~~ an attack of malignant disease.

Thousands in Philadelphia owed their lives to
 the occasional use of a ~~few grains of~~ Calomel,
 full, a few grains of Rhubarb, ~~or~~ a Spoonful
^{put on} of Castor Oil during the last autumn of 1793

a 3. ~~The fulness of the blood vessels and the predisposing~~
^{increased excitement of}
 depleting preventive consists in
~~the way may be obtained by keeping up a con-~~
^{erue and}
 -stant perspiration, or rather a moderate degree
 of sweat by means of warm cloathing, and

his cloaths. ^{excretion} The discharge which takes place by
 the skin is a discharge of the first vapors. I

never knew an instance of a person living at-
 -tached by our malignant fever in whom ^{this discharge}

was constant, and equally diffused all over
 the body. Its effects have been equally salutary
 -ry in preventing the plague. So well known

v upon the System as disposes it to vibrate
more readily under the impression of the
miasmata. Thus the willow rises after
bowing before a blast of Wind, while the un-
bending Oak is torn up by the roots. It is
from this vibrat^{ility} of the Systems of women,
in the West Indies, that they escape the endemic
fever of the Islands.

is this fact, that Mr Volney tells us in his tra-
vels into Spain, that the common salutation du-
ring the prevalence of the plague, is - Not how do
you - But "do you sweat freely"?

A 4th of depleting is Bloodletting. Dr Mitchell in
a manuscript acc^t of the yellow fever which pre-
-vailed in Virginia in the year informs us that
it was often prevented in persons who were predispo-
-sed to it by the loss of a few ounces of blood. Then
among the Spaniards

~~The French~~ It was formerly a practice in
~~the Spanish~~ ^{among the Spaniards} to bleed their troops as soon
as they ^{arrived from France} ~~came ashore~~, and by which means
they were preserved from the malignant disease
of the Island.

These remedies whether used separately, or to-
-gether induce such an artificial debility ~~as to~~
~~the patient to~~

2nd II: Class of preventives of malignant fever
are such as ^{obviate} ~~prevent~~ the ^{intestinal} action of virus mata-
-rial by exciting a ^{general or partial} ~~constant~~ action ~~in the~~



the external surface of the body. 28

~~System~~. These are

~~these~~

1 The Warm Bath. I have known this grateful remedy used with success in our city. It serves the double purpose of keeping the pores open by ^{the depending} ~~the~~ keeping the skin clean, as well as ~~keeping regular~~

~~determination to the~~ vital organs from disease by ~~keeping~~ inviting its predisposing cause to

the ~~top surface~~ ^{the} external surface of the body. 2nd washing the body with salt water every morning & evening

~~and~~ has had the same salutary effect

~~The bath~~ in the West India Islands. ~~of~~

~~account of~~ The application of oil to the body

3 ~~has~~ ^{Appointing the body with} ~~been used~~ ^{whether to include} oil when ~~has been used~~ with success in ~~applied to the body~~ ^{centrifugal} ~~an external~~ ^{determinations} of the fluids.

The natives of Africa use it with advantage during their sickly seasons. It has lately been ^{used} ~~great~~ ^{effect} ~~in the~~ ^{preventing} ~~stage~~ of the plague.

Its efficacy was suggested first by ~~no~~ oil man

24
those
Dr Baynard has left it upon record that persons who
lived in ~~water~~ water mills, also water men - Bargesmen
& fishermen ^{or in dabbling in cold water}
who were employed on the river were rarely infected
by the plague of 1665, and that but two persons died ^{with it} on
London Bridge. ~~with it~~ ~~The reason given~~
~~by the Dr~~ ~~supposes that the water in all these cases~~
~~was the cause of the plague~~ ~~was~~
~~not the cause of the plague~~ ~~by~~ ~~sup: 224~~ The Ablutions
enjoined by the Jewish ^{people} whom religions ^{require the}
^{same salutary} purpose. ~~Alas! says people who dabble much in~~
~~water escape it~~ ~~Clean hands in heaven he is advised.~~

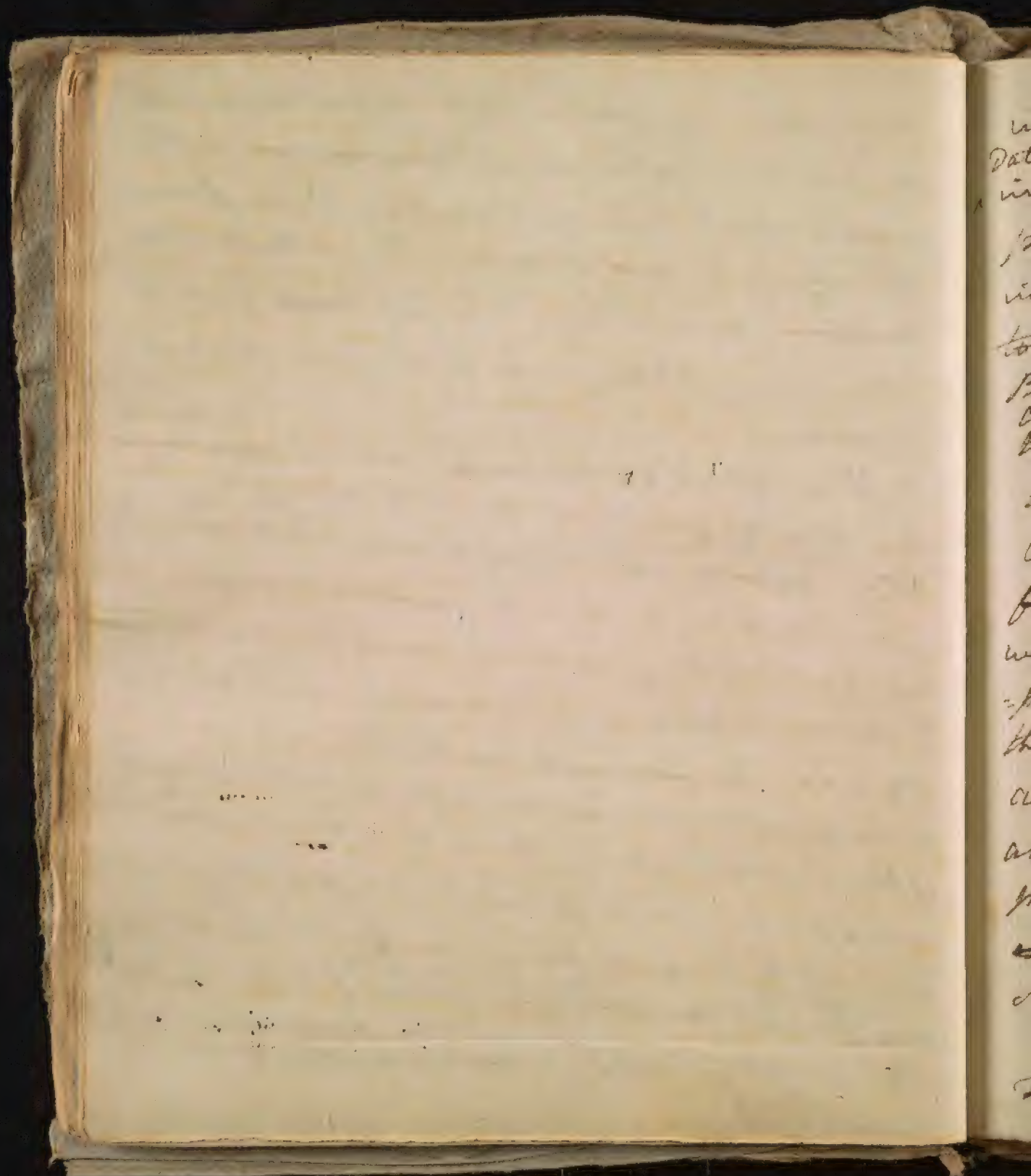
having died ~~during~~ of it during four years in
 which time 100,000 perished with it in Egypt
 alone. Olivier says - the Butter men are equally fortunate, ^{in escaping it.}

4 The Cold Bath, or Cold water applied to the ~~whole~~
 External surface of the body. Ulloa tells us
 in his travels through Cuba, that the Spaniards
 make it a practice when partially wetted by the
 rain, ^{to} plunge themselves ^{with their wet cloths on} into the first stream
 of water they meet with afterwards, ~~with~~ by
 which means they avoid taking the fever of the
 Island. ~~The~~ Certain African tribes ~~have been~~ ^{live}
 informed. The water carriers at Cairo whose
 cloths, & skin are always wet, ^{say}
~~generally~~ ^{Volney says} uniformly escape the plague. Dr Chris Holmes
 informs us that those negroes, who go naked,
 and are thereby ^{less disposed to avoid} ~~exposed to~~ the rain, & ~~water~~
 the water, ~~of the~~ are never affected with the fever
 of that country. Does the ~~hot~~ cold water in
 these cases act only by producing reaction in
 the system, & thereby fortify it against the



impregnation of ~~solid~~ pestilential miasmata?
 or does the water ~~destroy them~~ prevent their
 morbid effects by simply washing them from
 the body — or does it destroy their activity by
 mixture, or dilution? — Let ~~time~~ future
 observations & experiments answer these
 questions.

5 Issues, setons & ~~scabrous~~ blisters ^{belong to} ~~have been~~
 this class of preventives of malignant fever. In
^{I have said vol. 5 p. 124} ~~Hodges~~ ^{in 1665} was preserved from the plague by
 a constant discharge from a ~~diast~~ an issue in
 his leg. Another person who owed his preservation
 to the same means, used to say he could always
 tell when ~~he was with~~ in the army of the company
 he happened to meet, ^{he} was infected with the seeds
 of the plague by feeling from their breath, ^{a burn-}
 -ing pain in his ~~if~~ artificial sore. Dr Gallacher
 ascribed his escape from the Epidemic of 1799
 to a ^{mercurial} blister ^{which he applied to} ~~he kept open~~ his arm. For
 that purpose. Dr Barlow ~~was~~ ^{favoured me} ~~in a letter from Dr~~



with the light of letters from Dr James Sprou, ^{believed by}
 dated Jan 12. 1804.
 in which he says, that Dr Beach ^{had been}
 protected from ~~the~~ the bilious fever by an letter
 in his side ~~so that the doctor~~ ^{had} ~~in addition~~
 to this fact he adds further, that Dr
 Beach had been called to attend ^{the laborers at} ~~the~~ ^{out of 100}
^{Oranidaga} the salt spring, ^{in the State of New York} ~~as~~ ^{98 of whom} ~~had~~
 the bilious fever. Of the two who escaped it,
 one had a sore leg, the other a ^{scald head} ~~running sore~~.
~~from~~ The discharge from these sores, as
 well as from the doctor's issue was more co-
 -pious during the prevalence of the fever, than
 they had been at any other time. —

a III Class of preventives of malignant fever
 are such as excite a general action, ~~either~~ more
 powerful, ~~or of a contrary nature~~ ^{than} to that which
~~the miasmata~~ are disposed to create in the
 system, or of a contrary nature.

These are 1. ~~vine and great spiritus garlic.~~
~~garlic.~~
 There was not a single person affected by



the malignant fever in 1793 who used
 of these vegetables in his diet. The escape of
 several thousand french citizens who com-
 -posed part of the inhabitants of our city
 in that year, was ascribed in part to their
 liberal use of these ~~article~~ condiments in
 their food. The Jews, it has been often been
 said, have owed their preservation to it from
 the plagues of Europe. It is probable the
^{such as onions &c were introduced there}
~~general use of them in Egypt was in consequence~~
 general ~~use~~ into Egypt as the means of ob-
 -viating the plagues of that country. I have
 been at a loss to know why the Author of nature
 who has endowed these vegetables with so many
 excellent qualities for diet & medicine, should
 have accompanied them with such a disagreeable
 smell. Perhaps the reason was kindly to force
 it into universal use, for it is remarkable,
^{thats} ~~that~~ smell of it is imperceptible to those who

v The air extracted from fermenting wines,
during a plentiful vintage once checked the
ravages of a plague in Germany - tar pits
by Salammun; ~~inproof~~?
2 & small doses of Calomel taken so as gently to
affect the ^{breath or gums} ~~mucous~~, have in several instances
prevented attacks of ~~an~~ Epidemic malign^t fevers. It
preserved the crew of a Russian ship at Plymouth
in the year 1781 from a fever generated by filth in
her hold. In a letter which I rec^d. from Cap^t Bourton
in the year 1797, he informed me, that at Batavia
a old & respectable merchant, ^{at Batavia} had informd him he had
been ^{in good health} afflicted by it during the above 30 years in
~~the East Indies~~, a place where according to his Geo. Statist^c
half the men cross die every year of malignant fevers.

use them. ~~Under this head it~~ $\neq 2^{\text{ly}}$

[2] Certain ~~things~~ ^{matters} which act powerful upon the
 sense of smelling have been found to belong to
 this class of preventives of malignant fever. Mr
 Bruce & DeClash ascribe great virtues to the
 smoke of Coal & wood for this purpose.
 The hull of tar defended the shipwrights from
 the plague of 1665 in London. The Island of Lemnos
 says Mr Boyle ~~was healthy~~ ^{was celebrated for}
 its healthiness before the trees which ~~produced the~~ ^{close}
 clove exhaled a constant odor through it, were
 destroyed. When fetid odors have ~~permeated~~ ^{acted as} has
 the same salutary effect. of this Ambrose Parry
 relates a remarkable fact. He says a plague
 was once checked by in a city of Italy by killing
 a large number of
 all the cats & dogs, & suffering them to exhale
 their ~~poisoned~~ ^{poisoned} fates in the streets. I have said
 how do they all act? 1. 2. 3.
~~these~~ ^{sometimes}

3 Spirits of wine have ~~often~~ ^{sometimes} been resorted to as
 preventives of pestilence, but I believe they have
 sometimes generally ~~been~~ ^{been} ~~beneficial~~ ^{more}
 increased, instead of lessening the predisposition

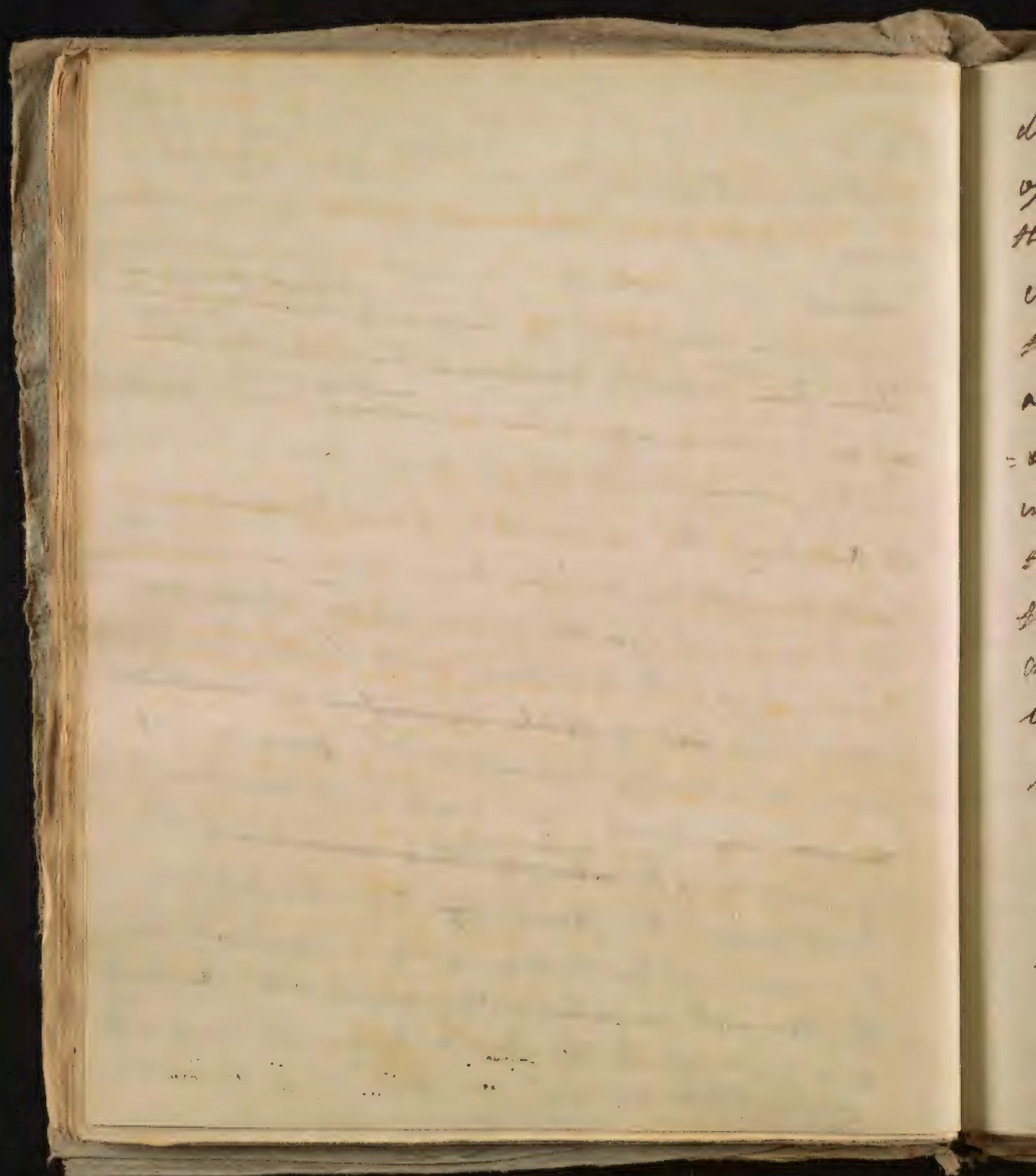


of the body to an Attack of the disease. by ~~using~~ ^{they are} ~~being~~ ^{too} effectual, their ~~stimulus~~ ^{state of} ~~ph?~~
~~be constant, and to only when they produce~~
 constant intoxication, for disease & death
 are the certain consequences of that ~~dolility~~ ^{state of}
 weakness & excitability which succeed in the
 least internal excitation & immoderate use of
 those liquors. I have known three instances
 of persons ~~who were~~ ^{two} ~~habitual~~ Drunkards
 surviving one of our most fatal Epidemics
~~who are constantly exposed to this~~ but
 neither of them was sober a single hour
 during the six weeks they prevailed in our
 city. nor ~~in any of the ways in which it is used,~~
 48 Tobacco ~~has~~ ^{has} ~~for some times~~ ^{been used} ~~been found~~
 to be any more useful than Adulterated spirits
 in preventing malignant disease. Mr Howard
 says no benefit was derived from it in the plague,
 and many hundred of our citizens can bear
 witness of its ineffectual use in guarding against
 the yellow fever malignant Epidemics of our
 city.



5th Camphor ~~by~~ suspended in a bag round the neck, and Bags wetted with vinegar ^{applied frequently to the nose} afforded no ~~more~~ safety from the malignancy of 1793 ~~than~~ tobacco. It is probable they ~~exp~~ increased the predisposition to it by ~~entangling & conveying~~ affording ~~to the~~ ^{more} ~~try their~~ ^{finer} volatile particles ~~to the~~ ^{of the} miasmata ~~which produced the disease.~~ ^{which} ~~increased the predisposition to the disease.~~

IV Clafs — Among the preventives of malignant fever, certain substances have been recommended ^{ch} w^{ch} it is said destroy the miasmata ⁱⁿ which ~~produce~~ by entering into mixture with them. Two persons who ~~took a table spoonful of sweet oil~~ were constantly exposed to the fever of 1798 ~~except the it~~ took each a table spoonful of sweet oil ^{every morning} ~~to which they assiduously~~ They both escaped the fever. ~~It~~ Did the oil in this case act by destroying the miasmata in the stomach ~~on which they appear to~~ chemically or did it defend the stomach mechanically from their action? or did it prevent the



disease only by keeping the bowels gently open? It is certain the fat of pork protects the ~~bowels~~ ~~bowels~~ & bowels of the men who work in the lead mines in Britain from the deleterious effects ^{which} of the fumes of lead, ~~that metal~~ & are so apt to bring upon the stomach alone - also and it is ~~certain~~ ^{not} surprising, a poisoned arrow will not injure a hog, if it be anointed by the fat which lines his sides. ~~I said formerly~~ ^{Dr. Remond's fat} that Sweet Oil I said formerly that I ~~discovered~~ application of Sweet Oil to the body has lately become a popular ^{mode of preventing} remedy for the Asiatic plague, & that many thousand persons who ~~dealt~~ ^{handled} it as an article of merchandise, had escaped that disease during four years of its prevalence in Egypt. ~~It~~ Possibly the effluvia emitted by the oil, by mixing with the miasmata may have aided its good effects in preventing the disease.

2 The vapor which issues from fresh earth

V Tubs of water in sick rooms in
fever of 1797. see page 121 vol 5.

Bathing in salt water. mor. Bauman

Skull of the goat - Tanjids - Sal

Am: ~~manif~~

Long interval between recovers
& prodigious causes & an attack.

has been supposed ~~to~~ destroy the miasmata
 which produce malignant fever by entering
 into mixture with it. ^{subst} Many of the persons who
 were employed in cleaning removing the dirt from
 the Streets of Philad^a also in digging cellars & graves
 in the year 1793 escaped the fever of that year. In
 the new Settlements of our Country it is said the
 prison of ~~and~~ the Kettlefurne is ^{deprived} ~~discarded~~ of
 its deadly effects upon the body by ^{depriving} ~~thrusting~~
 the wounded limb into a hole in the fresh earth.
 The fable of Anteus is said to who rose more
 vigorous with renewed strength from the
 ground as often after an 100 falls, he was probably
 intended to signify among other things, the ^{heating} ~~renewing~~
 salutary virtues contained in the ~~in~~ effluvia which issue
 from ^{from opening the} ~~the~~ fresh clods ^{of earth} which lie immedi-
 ately below its surface. V

In Addition to all the ~~poor~~ modes of obviating
 an attack of malignant fever when exposed to
 the air remains that I mention, the avoiding
 V all its exciting causes. ~~These~~ are great heat,

fatigue more especially from 38
and cold, labor or exercise not of an habitual
nature. The miasmata which produce ma-
lignant fevers often sleep exist in an inoffensive
latent state in the body for weeks or months, and
break out of it without doing any harm. Unlike
the seeds of contagious diseases, they ^{generally} require, ~~and~~
with but few exceptions, an exciting cause
to rouse them into action. These causes are
1 heat, 2 cold, 3 fatigue more especially from un-
usual labor or exercise, 4 fasting - + 5 intemperance in
eating & drinking, and 6 all violent emotions &
passions of the mind. The degree of caution with
which these exciting causes should be avoided, sh^d
be regulated by the quantity, and activity of the
miasmata which dispose themselves in the
body. ~~There are~~ ^{which dispose themselves in the} ~~in the~~ ^{which are of a}
~~moderate degree of malignity, but little change~~
~~should~~ ^{will be necessary to in the manner of}
living, than in those which are malignant
in the highest degree. In the latter, no new

V
 the voice so loud
 I would speak ~~without the~~
 the shores of the Mississippi, -
United States I would say
 - for the malignities of our
countrymen - nor should I say, Beware of
 where the duties of human or
 attendance upon the sick -
Campes have been men-
 of our human and natural disease. -

= course with the sick in order to prevent the disease, because ~~it~~ it is not propagated by contagion. In places not infected by miasma & atmosphere ~~it may~~ the most laborious offices of humanity may be performed to the sick, & in places ^{where} are so, the sick may be visited, & even attended with safety by ² friends, provided they avoid the exciting causes of the disease before mentioned.

Aliment should be tasted, and even customary
 Acts of labor & business should be suspended.
 The inhabitants of Constantinople & ~~other~~ ^{Smyrna}
~~erroneously~~ ^{erroneously} & ~~weakly~~ ^{erroneously} suppose they escape the contagion of
 the plague by shutting themselves up in their
 houses during ~~the time of~~ its prevalence, but
 they owe their safety wholly to their being re-
 moved ~~by~~ ^{by} rest, & a total exemption
 from care & business from all its exciting
 causes. Confinement is more certain ⁱⁿ ~~only~~
 effects when persons occupy the upper stories
 of their houses, ~~only~~. The inhabitants of St.
 Lucia Dr Christopher says by this means often
 escape the ^{contagious} yellow fever of that Island. It has been
 said such is the difference in the ~~from~~ healthiness
 of the air ~~in the~~ between the upper & lower of
 the stories of a house, that birds live in the
 former, & die in the latter, during the prevalence
 of a plague in the Eastern Countries. June 20
 much improved with a sense of the ^{general} necessity of the
 cooperation of existing causes to produce the malignant
 fever of our country that if

In the mild grades of the Summer & Autumnal
fevers of the United States, the means of prevention
are different from those which are proper to
prevent it in its malignant forms. ^{The latter - below it -} They
consist of such things as gently invigorate the
system, & thus create an action superior to that
to which the Body is ^{exposed} ~~pre-disposed~~ by the miasmata
which ~~which~~ have been imbibed. ^{In other words} They create a
~~living above the one leading to the fever the other leading to the~~
~~current to destroy it by separating it~~
I cordial Diet & Drinks, Consisting of ^{salted} salted
and fish, with a moderate quantity of wine,
or malt liquors. ⁺ Spirits sh^d. be used cautiously, for
when used long en^d to do good - they create ^{by} a habit of
dangerous attachment to
~~using them~~. A strong infusion of any bitter
^{in water} herb taken upon an empty stomach is a cheap
& excellent substitute for all the above liquors,
where they cannot be ~~aff~~ afforded. ~~water is healthy~~
~~that~~ The late ^{Prof^r} Gregory used to tell his pupils
that out of 25 ^{young} English ~~men~~ men who
were his follow students at the University of Leyden

Saline tells us
v The farmers of Oldenep, ~~not~~ long lived who
soon went out early to their work, were
rarely long lived, probably from inhaling
miasmata with the morning air.

3 + all ~~great exertions~~ ^{the exciting causes of fever formerly} ~~should be~~
mentioned should be avoided with some common
care ~~is~~ 3 days before & 3 days after the full or
change of the moon.

~~Among whom was the late John Wilkes, ~~for~~ during~~
~~twenty four of them escaped an Epidemic Intermittent~~
~~upon inquiry it was found~~ While the only one ~~was~~
~~They all drank wine daily. The only one who was~~
~~One of them only was affected by an Epidemic In-~~
~~termittent which prevailed in the tower. He drank~~
~~water only - The~~

~~Intermittent~~
~~= twenty four of them escaped an Epidemic which pre-~~
~~-vailed in the tower, ~~they all~~ drank ~~by~~ wine daily. The~~
~~only one of their number who was affected by it~~
~~drank nothing but water. But ~~richly~~ has sometimes~~
~~been taken daily with advantage as a preventive of the mal-~~
~~in addition to~~ With these Cordial articles of Diet

~~the~~ ^{medicine,} perspiration should be kept up by ~~use~~
^{and warm} clothing. - the early morning, & the evening ⁱⁿ
 fire should be kindled in cool & damp
 weather, ~~and~~ also in the morning & evenings in
 warm or sitting rooms - ~~and~~ By these means thou-
 sands have been preserved from ^{and} remitting and
^{& chronic} intermitting fevers in the most sickly seasons,
 and countries. +

Summer &
 The intestinal state of our Antennal

Mr Duvar tells us

✓ The fresh soldiers ~~who~~ while in Egypt,
carried pepper boxes with them to eat with
the fruits of the Country wherever they went,
and thereby escaped the diseases of the Country.

disease - requires ~~fruits & spices~~ ^{several speci-}
 -fic means to prevent them, different from those
 which are proper to defend the blood vessels from it.
 Unripe, and decayed fruit should be avoided while
 that ~~the~~ which is ripe & sound should not be
^{eaten} ~~taken~~ in ^{an} excessive quantity. ~~Spices~~ ^{particular}
 Cayenne pepper & the red pepper of our country
 should be taken ~~with the daily with food~~, ^{as Dr. Boer-}
^{of the Country} says the inhabitants of our ~~new~~ ^{visited} ~~possessed~~ ^{made it a} ~~practice~~
 to in the season of Coughs complaints to eat
 pepper in such quantities as to excoriate their
 throats ~~with it~~. The whole diet should at such
 times be of a calid nature. A Dysentery ^{prevalent} ~~was the~~
^a ~~remed~~ ^{five years ago} ~~to prevail only in the night?~~
 of Georgetown in every land ~~only among~~ ^{only among} ~~the~~ ^{confined}
~~only~~ ^{to} protestant families. The members of the
 Catholics who lived ~~at~~ in conformity to one
 of the Canons of their Church ^{eat weekly of some} ~~had~~ ~~eat~~ ~~had~~
 -times often of Salted fish ~~was~~ ^{very generally}
 escaped it. In the year 1764 ^{a Dysentery broke} ~~which I was~~ ~~infected~~

v It was once prevented in all the boys
of the Bordentown Academy while it
was epidemic in that town, by giving them
Kolasus in large quantities in their diet
& drinks. It probably acted only as a purge.

out in the Village of Punneton & affected many of
 the Students of the College. ~~It~~ It was remarkable
 it spread by all those boys who came from the cities
 of Philad^a & New York. This was ascribed to their habits
 of living ^{more upon} ~~and~~ coffee than the ^{farmers} ~~for~~ ^{from} ~~for~~
 those articles of diet were ~~there~~ but rarely used
 in 45 years ago in the farm houses ^{of the ind.} ~~of the ind.~~
 of the States of America.
 Country. It is probably to ~~this~~ the more cordial
 Nature of the diet of the inhabitants of our
 Cities than of Country places, that the Dysentery
 is so ~~rare~~ rarely prevails in them. I have never
 seen it Epidemic in Philad^a.

Another means of preventing the Dysentery
 is to avoid Costiveness, ^{to cleanse the bowels} ~~It is generally~~ ^{as they} ~~is~~
 they are in a natural State.
 by it. A Captain of the militia of Pennsylvania
 preserved his whole company from a Dysentery w.
 prevailed in the American Army in 1776 by giving
 each of them a purge of Salt Water. He preserved
 his family & many of his neighbours some
 years afterwards from the same disease by dividing
 among them a few pounds of Chamberlains.

~~500 people~~
✓ The plague says Purchas Destroy 500 persons ^{the} day after the Nile completely overflows its ancient bounds, than it does the day before. For the matters which
this was done with ~~happ~~ by ~~impedocles~~ by ^{these} produce ~~many~~ ^{may} be washed away by larger streams of water? Impedocles checked the plague at Schiris by pouring the streams of two neighboring rivers upon the fift which produced it. ✓ Purchas tells us the plague ^{that} Destroy 500 people ^{die} the day after the Nile completely overflows the grounds which emits putrid exhalations than did the day before. we also see +

As the Dysentery ~~is~~ ^{is} often excited by the dampness ^{avoid it, or} of the night air, great care sh^d be taken to defend the bowels when exposed to it, to defend the bowels by ^{more} ~~and~~ ^{unusually} warmth, than other parts of the body. The Egyptian bandage or belt sh^d be used for this purpose.

II. I come now according to the order I proposed, to mention the means of ~~preventing~~ preserving whole cities, or communities from the influence of those morbid exhalations which produce the malign^t forms of the Summer & Autumnal disease of ^e the United States.

As the flight of a whole city is rarely practicable, it will be necessary to seek for the means of destroying the morbid miasmata.

1. Where the ^{putrid} matters which emit them are ^{limited} ~~limited~~ of a small extent they may be ^{removed} ~~covered~~ ^{covered} with earth or water. ~~The malignant bilious fever was~~
~~But~~ During the prevalence of a malign^t fever it will be unsafe to remove ^{filthy matters} ~~them~~. A plague was generated by an attempt to clean the filth from the which had accumulated

V by means of mixture, or by creating
a new action in the system. The air
extracted from fermenting Wines during
a plentiful Vintage is said once to have
checked the ravages of a plague in Geneva.
- my. Ambrose Parey says the plague was
~~once checked~~ ^{by} in a city in Italy by killing
all the Cats & Dogs in the place, & suffering
them to petrify in the Streets. The yellow fever
has never appeared in the Salt Marshes near
this city, & rarely in the
vicinity of ^{near the} ~~Lampitts~~ in its suburbs - perhaps
from the effluvia emitted by them. It
has been said that the plague has never visited
London since the sea use of Sea Coal for fuel.
It is possible its smoke may have been useful,
but other causes have contributed to prevent it, former
= by mentioned.

on the banks of the waters which surround the city of Mantua during the summer & autumnal months. Even a shower of rain by disturbing a pellide which sometimes is formed over ~~putrid~~ putrid matters, has ~~let~~ more than once let loose ~~some~~ exhalations that ~~the~~ have produced a pestilential disease.

2 Lime has been found to be a powerful Antidote to ~~putrid~~ ~~the~~ air extricated by putrefaction. It has often been thrown into privies with Obvi-

ous advantage in sickly seasons. How far it might be employed to destroy the foul air of ^{ships - cellars} Docks, & common ~~sewers~~ ^{sewers} remains yet to be determined by future experiments.

3 ^{Disinfecting} Impregnating the air ^{with certain effluvia} ~~with~~ ~~effluvia~~ which acts ~~is~~ either by destroying miasmata, ✓

4 Mr. Mosman has lately proposed the muriatic gas as a means of destroying miasmata. However effectual this acrid & vitriolic gas may be in

V of preventing pestilential diseases. His
name like Varro a Roman general was
exposed with a large fleet & army at Cor-
-ra to a malignant fever. He discovered the
cause of the miasmata which produced it
to be from the south - in consequence of
which he fastened up all the southern
windows & doors of the houses in which
his troops were quartered, & opened new ones
to the north, by which means he preserved
his troops from the fever which prevailed
in all the other houses of the neighbourhood.

Mr Howard advises keeping the doors & windows
of houses exposed to the plague, constantly shut,
~~during except~~ during the period of sunshine.

destroying the foul Air generated by, & discharged
 from the human body in confined & filthy in-
 habitations, neither of them is calculated to oppose
 the progress of a disease which exist in the external
 Atmosphere & spread over a large extent of ^a ~~large~~ ^{its}
 city or country. Mr. Gower can indeed tell his
 his Annihilator Gas checked the late malignant
 fever of 1801 at Cadiz - ~~but is~~ ^{to refute} ~~to be~~ ^{it was}
 used ^{late in} ~~on~~ the person, at which time ~~it~~ it is much
 more probable the disease was destroyed as it is in
 all other countries in middle latitudes, by cold
 weather. Tubs of water in 1797.

5 Varro in his treatise upon agriculture
 mentions a curious fact upon the means
 The explosion of gun powder has been proposed
 to change the state of the atmosphere, but no be-
 nefit has ever been derived from it.

The large fires ^{have been made} in the Streets of Cities ^{have been}
~~made~~ ^{not} for the same purpose, but without
 producing any good effects. ~~They~~ ^{They} ~~Hodges~~
 says they were hurtful in the ^{last} ~~great~~ plague of 1865 in

+ Interposing Rivers - water &c.

V ~~Describes~~ In the Character given by Luther
of Pope Julius, he ~~ascribes to~~ says he kept
the Streets of Rome, so clean & sweet, that
there ^{were} ~~was~~ no plagues, nor sicknesses During
his time?!

~~Rome During the time of Pope Julius 2nd?~~
~~see Luther -~~

which had ^{afflicted}
~~been visited~~ nearly every year for above half
a century, ~~has since~~ by the plague has

England in the year 1665 ~~was~~ ^{as to afford an}
 asylum to the ~~royal family~~ ^{Royal family of King 2^d of Britain} ~~and~~ ^{from} the plague

which ravaged London & many other parts of

Eng^d in the year 1665 ^{only} in consequence of

its being ~~recently~~ ^{some years before} cleansed by the Bishop
 of Winchester

2^d In the construction of ~~our~~ cities, ^{at narrow}
 streets & alleys ^{Deep} should be carefully avoided. ^{large}

~~lots~~ ^{lots} should be left for a yard, or garden for
~~every house~~ ^{subterraneous channels} ^{the mowing off the contents of}

and ^{and} a great advantage would
 arise, could cities be built so as to leave ^{vacant}
^{spaces}

between ^{equal} ~~equal to those~~ in number & size to
 those which were covered with houses. Perhaps

the light & dark squares of a checkerboard
 might serve as a model for ^{the execution} ~~each town or city~~

of such a plan for ~~a city~~ all cities which are
 to contain more than 5000 people. The city of

London ^{it since} had never been visited by the plague ~~the~~
~~the destruction of the~~ ^{by fire} ~~burnt down~~

buildings in the year 1666. ^{even} ~~as if~~
 appeared by the sufferings of ^{the citizens of London} ~~that city~~ ^{the year} ~~the~~
 citizens

v

I have met with many excellent quotations from
 a work upon this part of our subject by Torzetti a
 physician of Italy from which I have no doubt much
 useful information might be obtained. ^{The Rev. Th. Hall} a gentleman
 at Leghorn to whom I made an unsuccessful ap-
 plication for this work speaks of it in his answer
 to my letter in the following terms. "Torzetti has
 in such high estimation that the late Emperor
 Leopold when grand Duke of Tuscany caused it to
 be printed at his own expense, & presented it to
 his friends. The consequence of this, was
 it influenced the proprietors of low, marshy
 lands in the neighbourhood of the River Arno
 them, and thereby rendered ~~them~~ the abode of
 noxious ~~pestilential~~ air, and malignant fever, a times-
 -trial paradise"

Plague checked by Quins &c

in that memorable year, 49

~~from that disease, in many printed out destroyed~~
at the time they were venturing
~~its thin cause, and while they were excavations~~
~~upon a basin~~
the bale of filth ~~was~~ imported from Holland as the
vehicle of the seeds of the disease, kindly printed out
I removed its cause by permitting a fire to
~~be set to those~~ ^{be set to those} ~~of a narrow street~~ small
destroy whole ~~preacher~~ buildings which had been
the sources of their calamities. Those streets
were to London what water street ⁱⁿ Philad:
Hills point to Baltimore; ^{to Norfolk} the ~~the~~ the slip to New
York and Water Street to the town of Norfolk. —

3. ~~These~~ the Summer & autumnal diseases of
~~our country~~ arises from impure exhalations
they should be ~~destroyed~~ destroyed by drains, by
wells communicating with their subterraneous
perforations in the manner recommended by
Dr Anderson, or by ^{cultivating} ~~watering~~ upon them, certain
grapes which absorb their ~~water~~ ^{moisture}, & when
none of these modes of destroying them is
practicable, ^{by} overflowing them with water.
The Summer & autumnal diseases of our country
by ~~it has been remarked that the annual~~
~~disease of our country~~ have often followed

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becoming by its exhalations a source of ~~our~~
 disease. A law to require Phys: report on the
 first cases of fever.

In speaking of the means of preventing
 & exterminating the malignant forms of our ~~main~~ fevers,

it may appear strange that I have said
 nothing of the efficacy of Quarantines to ~~defend~~ ~~our~~
~~interior~~ for that purpose. where I now

addressing ~~address~~ ^{addressing} before an audience composed
 exclusively of citizens of Philadelphia, I would
 do homage to their ~~prejudices~~ ^{prejudices} as a respectful & melancholly silence,
 be silent upon this subject, & I would request
 permission to retire for a few moments to in-

-de Deplore in secret the evils which that belief
 in Quarantines has done to our country
 in our ~~country~~ ^{country}

But as I am ~~addressing~~ ^{speaking to} gentlemen of ~~unprejudiced~~ ^{unprejudiced} ~~feelings~~ ^{feelings}
 & ~~representatives of citizens of other States~~ ^{gentlemen from} ~~various~~ ^{various} ~~States in the Union~~ ^{States in the Union} ~~whose~~ ^{whose}
 minds are free of prejudice & open to ~~reason~~ ^{reason}
 the dictates of reason, ~~no~~ ^{no} ~~unprejudiced~~ ^{unprejudiced} upon this subject, I feel myself

safe in asserting that they ~~are~~ ^{are} ~~a~~ ^a ~~valuable~~ ^{valuable}
 no efficacy in preventing ~~the~~ ^{the} our malignant

to
 V enedictine in our country, & that hundred
 who would blush to write in the cry of
 "great is Diana of Ephesus" are ^{as branded} not to ex-
 -claim; "great are ^{the} quarantines of all
 our states." knocked out brains,

Should ~~and~~ I attempt to enumerate all the
 evils which ~~as belief~~ in this error has introdu-
 -ced into our country, my lecture would extend
 with the day. Thousands of our citizens have
 been conveyed by it to premature graves. Millions
 of Dollars have been wasted by its ~~into~~ fatal in-
 -fluence upon the public mind. By unnecessarily
 shutting up the ports of foreign countries against
 our ships, it has impaired our commerce, agri-
 -culture & manufactures. But this is not all.
 The belief in the contagious nature of the yellow
 fever which is ~~so~~ so solemnly ^{and} enforced by
 quarantines has demoralized our citizens,
 & in some instances petrified their very hearts.

bilious fevers, in any other way than by excluding
 the foul air that is generated in the hold of a ship
 which may be done as easily in a single day as
 as in weeks or months. They originated in ^{many}
 error, and have been kept up for ~~many~~
~~century~~ years by a supine & traditional faith in
 the opinions and conduct of our ancestors in
 medicine. They do violence to reason & Science
 by ~~disproving~~ ^{rejecting} the connection between all the
 changes which take place ~~between~~ in the animal
 vegetable & aerial kingdoms, and the existence
 of pestilence, and thus ~~defeat~~ ^{render} the abortive
 a large portion of the goodness of heaven ^{to}
 the children of men. In a word, they ~~are~~ ^{produce} ~~the~~
 all the evils of the fatalism of the Turks un-
 der a ~~spurious~~ the cover of a popular & imposing
 name. In contemplating the prevalence of a
 general ~~prevailing~~ belief in quarantines in the
 highest & most respectable classes of citizens
~~that~~ we are disposed to believe there has been
 a ^{translation} ~~metastasis~~ of Superstition from Religion

future ravages of war ~~upon the lives of our~~
the depopulation of our cities from the fifth
now generating in ^{their} bowels - the ^{destruction} decay of our
trade, & the universal poverty & distress of our country
~~population by the deaths of thousands of our citizens~~
~~scattered from the continuance & increase of war~~
~~in our hospitals - and the from the operation~~
~~of domestic disturbances among us,~~
- did not a ray of light break in from the
east to ~~dispel~~ ^{dispel} the gloom which such a
dreadful anticipation are calculated to create.
~~was that~~ ^{the scourge} the plague, which ~~has been~~ ^{is} believed from
has lately been discovered to be a disease of ~~our~~ ^{the} ~~country~~ ^{universal}
of domestic exhalations & incapable of being com-
municated by contagion, ^{& of course equally} ~~is~~ ^{subject to destruction.}
discovery more pregnant with blessings to man-
kind, has ~~never~~ ^{seldom} been made. ~~Its~~ ^{universal} ~~destruction~~

It ~~also~~ has extinguished friendships - anni-
-hilated religion - and even violated the
sacrament of nature by resisting the loud &
vehement cries of filial and parental blood.

In contemplating gent. ~~all the present~~
operation of all the causes which have pro-
-duced the public & private calamities that
have been mentioned, I ^{should} feel disposed to retire
from your presence, & deplore in secret
the future depopulation of our cities, ~~from~~
~~the filth now generating in them~~ the destruc-
-tion of our commerce, & the universal poverty
& distress of our ^{citizens} ~~country~~ from the continuance
& increase of all the causes of domestic pes-
-tilence among us, - did not a ray of light
break in from the East to dispel the gloom
which such anticipations are calculated
to create — yes the plague, the scourge
& terror of our globe, has been proved, like
our ~~yellow~~ American yellow fever, to be the

55.
offspring of domestic exhalations, ^{to be} ~~and~~ in-
capable of being communicated ~~of~~ by contagion.
and of course, to be subject to destruction. A
discovery more pregnant with blessings to man-
kind, has seldom been made. Its universal
adoption is ensured by the physicians, and
philosophers of two great ^{& hostile} nations concurring
to disseminate it over every part of the world.
Pyramids of error, the work of Sycupine
Ages and nations must fall before it, &
rivers of tears must be dried up by it.
No wonder death, abashed by the defeat he
has met with from Science in Egypt, has
lately grasped the sword of war with tenfold
fury, as if conscious it was the only re-
-maining instrument of the general, and
sudden destruction of the human race.

^{over}
v = tree of Antimonial Air, ~~and~~ shall no
more be damped by Antimonial richness. ^{an} The
accidental existence of a ^{is generated} large of bitious fumes
shall expose the place where it exists to obloquy
& disgrace.

[illegible]



future
of this happy change is the condition of our
globe, & of the melioration of the physical condition of
man, without ~~any~~ without cherishing
a hope that some great & equally
favourable to his moral & intellectual
improvement is about to take place upon our globe.
The hope is strengthened by the similar influence w:
the discovery of vaccination is calculated
to produce upon the increase of the hu-
man species. even we cannot scarcely believe
are to be multiplied beyond all former times,
only to ~~be increased~~ ^{enriched} the number of slaves
to drink more copiously of the ~~poison~~ ^{poisonous}
extensive because the affords more extensive
~~subjects~~ ^{for} the crueries which are con-
ducted with ~~you~~ ^{the prevailing} ignorance, since slavery of
the greatest part of the inhabitants of the world. But
But I ~~cannot~~ ^{do not} see how this suffering - But
- the certain drops - which intercepts
the distress with reluctance from the
to which my attachment to our friends



~~had led me~~ — the delightful prospects into
 futurity, to which ^{as part of a greater interest} my Attachment to
 Discovery, ~~had led me~~. — I have only to sug-
 gest to ~~the members of our Society~~ ^{you gentlemen} that
 it to render ^{this Discovery} it, and ~~all the other means of~~
 effecting extensively & speedily useful, our labors
 must second the researches of our Europe-
 an brethren. Let us ever recollect that
 we are the sentinels of the health &
 lives of our fellow citizens, and that there
 is a grade of ^{higher} merit in cases our profession must
^{greater than} ~~above~~ that which consists ^{arises from}
 the cure of diseases. It consists in destroying
~~exterminating their causes, & thereby destroying~~
 them, by exterminating their causes. —

For the attention with ^{which} you have
 honored my detail of facts, I beg you to receive
 my ~~most~~ ^{for its defects I solicit your} grateful acknowledgments, ^{and} for
 its length, — I beg your forgiveness. With every best



wishes for the usefulness & prosperity of our
 Society, ~~and~~ for the ^{avoidal} individual happiness of each
 my colleagues, ~~that~~ ^{of them} - I bid you ^a Adieu! on I
 request each of you to accept of my most
 cordial salutations.

